

# **MODELING OF TRAFFIC MOVEMENTS IN SEBERANG PERAI UTARA, PENANG, MALAYSIA USING OmniTRANS**

By

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Report is submitted as  
the requirement for the degree of  
**Bachelor Engineering (Hons) (Civil)**

**UNIVERSITI TEKNOLOGI MARA  
MAY 2006**

**DECLARATION BY THE CANDIDATE**

I am Muhamad Fairul Bin Samsudin, UiTM no.2002611712 declared that this thesis is the result of my own work, except the ideas and summaries which I have clarified their sources. The appropriate credit has been given where reference has been made to the work of others. The work has not been accepted for any degree and is not currently submitted in candidature of any degree.

Signed: .....  
Date: .....

## **ACKNOWLEDGEMENT**

I, from the depth of my heart, praise Allah The Almighty who is the most praise worthy. Nothing may take place without His leave. I express my heartiest indebtedness to my family for their tender care and affection.

I would like to take this opportunity to express of my greatest gratitude and appreciation to my supervisor, Prof Madya Dr Ahmad Hilmy Abdul Hamid for advices, guidance, patience, encouragement, cooperation and enthusiastic support in the duration of thesis preparation until completed.

I am also would like to dedicate my special compliments to Professor Madya Ir. Damanhuri Jamaluddin for his guidance and teaching the subject Research Methodology.

I would like to take this opportunity to deliver my thanks to individual persons, organizations, and to all my friends which contribute directly or indirectly in giving their cooperation, encouragement and moral support to make the completion of this project possible.

I also thank my beloved father and mother, Samsudin Bin Idris and Salmah Binti Hj Annuar in their never ending support, great understanding and encouragement throughout the years has contributed to success of my studies. May The Almighty One Shower His blessing upon all of us and make this small effort useful and beneficial for others for future reference.

## **ABSTRACT**

Transportation planning uses the term 'models' broadly. This term is used to refer to a series of mathematical equations that are used to represent how choices are made when people travel. Travel demand occurs as a result of thousands of individual travelers making individual decisions on how, where and when to travel. Models require a series of assumptions in order to work and are limited by the data available to make forecasts. This research focuses on analyzing OmniTRANS to model the traffic movement. Based in area Seberang Perai Utara, Penang, the traffic movement is simulated according to the historical data, pre-2004 road system and compares the results with the published data, to determine which methodology better replicated actual volume. Then, result from the analysis is used to forecast near-future traffic in 2010. Finally, comparison between both simulations of traffic movement was made to identify the changes of traffic flow in the study area.

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